



Instructions for BWP AQ 27 and BWP AQ 28

AQ27: *Application for Certification of Greenhouse Gas (GHG) Credits*

AQ28: *Application for Verification of Greenhouse Gas (GHG) Credits*

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Introduction

MassDEP *Applications* and *Instructions* are available for download from the MassDEP Web site at mass.gov/dep in two file formats: Microsoft Word® and Adobe Acrobat PDF®. Either format allows documents to be printed.

Applications and *Instructions* in Microsoft Word® format must be downloaded separately. Users with Microsoft Word® 97 or later may fill out the *Application* form electronically.

Application packages in Adobe Acrobat PDF® format combine *Applications* and *Instructions* in a single document. Adobe Acrobat PDF® files may only be viewed and printed without alteration. *Applications* in this format may not be filled out electronically.

MassDEP strongly recommends that applicants thoroughly review the *Applications* and *Instructions* before beginning the application process.

PLEASE NOTE: The MA Greenhouse Gas Credit program is new and, within MassDEP, is unique in many respects. Given the wide variety of potential projects to reduce, avoid, or sequester GHG emissions, MassDEP has tried to make this application form and the application process as flexible as possible. It may be unclear how the questions on forms AQ27 and AQ28 apply to some projects; the information about some projects may not fit neatly onto the forms. If you are uncertain about how to best answer any question, please contact the Department for assistance. Contact William Lamkin at (978) 694-3294 or via e-mail at william.lamkin@state.ma.us or Nicholas Bianco at (617) 292-5705 or via e-mail at nicholas.m.bianco@state.ma.us.

Application Information

1. What is the purpose of Greenhouse Gas Credits?

GHG Credits provide a compliance mechanism for regulated facilities to demonstrate compliance with the CO₂ provisions of 310 CMR 7.29(5)(a)5. Facilities can choose to meet the emission standards on an on-going basis, i.e., “out-the-stack,” and thus not need to use GHG Credits. Alternatively, GHG Credits, once verified according to the procedures in 310 CMR 7.00: Appendix B(7), can be banked and used to demonstrate compliance with the GHG emission standards of 7.29(5)(a)5.



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2. What facilities are regulated by 310 CMR 7.29(5)(a)5.?

Six power generation facilities in Massachusetts are affected by these regulations: Brayton Point Station (Somerset, MA), Salem Harbor Station (Salem, MA), Mystic Station (Everett, MA), Canal Station (Sandwich, MA), Mt. Tom Station (Holyoke, MA) and Somerset Station (Somerset, MA).

3. Who is regulated by 310 CMR 7.00: Appendix B(7)?

This program is voluntary. Only those individuals who choose to apply for GHG Credits are regulated by 310 CMR 7.00: Appendix B(7).

4. Who may apply for GHG Credits?

Any person who owns, leases, operates or controls a project that reduces, sequesters, or avoids emissions of GHGs may submit an application. Any party who aggregates one or more projects in order to reach the minimum application threshold of 5,000 short tons of carbon dioxide equivalent emissions per year, such as a common owner of projects, an energy service company, an emission trading broker or a state or municipal entity, may submit an application. GHG Credits approved by the Department will be deposited into the GHG Credit Account designated by the applicant at the time of application.

5. What is a GHG Credit Account and how is it created?

GHG Credit Accounts are established so that the Department and GHG Credit holders can track and manage GHG Credits. GHG Credit Accounts may be established or revised at any time by completing the Greenhouse Gas (GHG) Credit Account Application/Revision form. Applicants must: 1) designate an existing GHG Credit Account for the receipt of GHG Credits, if approved, or 2) submit a completed Greenhouse Gas (GHG) Credit Account Application/Revision form at the time of application for certification and/or verification of GHG Credits.



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6. What projects are eligible for GHG Credits?

Projects are eligible for GHG Credits if they reduce, avoid or sequester emissions and meet each of the following criteria: real, additional, verifiable, permanent, and enforceable. Applicants are required to demonstrate that the GHG emissions reduced, avoided, or sequestered are real, additional, verifiable, and permanent. The applications and public hearing process will inform the Department's determination whether the GHG emissions reduced, avoided, or sequestered are real, additional, verifiable, permanent, and enforceable. The following definitions have been taken from 310 CMR 7.00 Appendix B(2) and (7).

Real means actual

Additional means GHG emission reductions, avoided emissions, or sequestered emissions that are not required by local, state or federal law or regulation, or as part of a local, state or federal permit, plan, or plan approval, agreement, administrative or judicial order, or as part of an enforcement action (including such laws, regulations, permits, plans, plan approvals, agreements, orders or actions taken to reduce other pollutants) at the time of submittal of a certification application. A requirement to obtain a permit or plan approval under local, state, or federal law solely for the purpose of constructing, installing, or operating a voluntary emission reduction, avoided emission, or sequestered emission project shall not be considered when determining whether or not such project is additional.

Verifiable means that emission reductions, avoided emissions or sequestered emissions can be determined through replicable (as defined in 310 CMR 7.00: Appendix B(2)) methods which are acceptable to the Department.

According to 310 CMR 7.00: Appendix B(2), replicable methods are those that “are sufficiently clear and unambiguous such that the same or equivalent results would be obtained by the application of the methods by different users.” A variety of replicable methods may be acceptable to the Department. Applicants should examine applications for certification (BWP AQ 27) and verification (BWP AQ 28) that have been approved by the Department before submitting their own application for certification (BWP AQ 27) or verification (BWP AQ 28). Where similar projects have not yet been certified or verified by the Department, applicants may examine protocols employed by other carbon constraining programs (e.g., Regional Greenhouse Gas Initiative, Clean Development Mechanism) and submit applications using those protocols for review by MassDEP.

Permanent means that GHG emission reductions, avoided emissions, or sequestered emissions implemented for the purpose of generating GHG Credits must be assured for the life of the corresponding GHG Credits.

Enforceable means enforceable by the Department.



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7. How should applicants ensure that sequestered emissions are permanent?

Land within a sequestration project boundary must be placed under a legally binding instrument such that the sequestered emissions remain captured and securely stored in perpetuity (e.g., a conservation easement).

8. How does an applicant demonstrate that a Department approval of a BWP AQ 27 or BWP AQ 28 application would be enforceable by the Department?

The applicant does not need to make this demonstration. The Department will make a determination of enforceability on a case by case basis.

9. Who is subject to enforcement if a violation of 310 CMR 7.29, 310 CMR 7.00: Appendix B(7), or a related approval is found?

The Department may take enforcement action against the affected facilities, any person who applied for certification or verification of GHG Credits, or any combination thereof, depending on the nature and circumstances of the violation.

10. Are any project categories ineligible for crediting?

The following categories are not eligible for certification as GHG Credits: nuclear power generation, under-water and under-ground sequestration, and early and over-compliance with the cap and rate limitations in 310 CMR 7.29 by affected facilities.

11. Are there any timing requirements regarding project commencement?

In order to be certified or verified as GHG Credits pursuant to 310 CMR 7.00: Appendix B(7), emission reductions, avoided emissions, or sequestered emissions may be generated only by projects built and generating energy (in the case of certain avoided emissions), or built and in use, or installed and operational (in the case of emission reductions or sequestered emissions) on or after January 1, 2006.

Increases in the reduction, avoidance, or sequestration of GHG emissions after January 1, 2006 from projects built and generating energy, or built and in use, or installed and operational, before January 1, 2006 qualify for GHG Credits only if the increase in the reduction, avoidance, or sequestration of GHG emissions results from a physical change that is completed on or after January 1, 2006. Only the increase in GHGs reduced, avoided, or sequestered as a result of the physical change to the project are eligible for approval under this program.



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12. What geographic constraints are imposed on the application?

As of October 6, 2006, projects must take place in one of the following jurisdictions: Connecticut, Delaware, Maine, Massachusetts, Maryland, New Hampshire, New Jersey, New York, Vermont, or the coastal waters thereof. If the Department approves a United States jurisdiction that has a carbon constraining program pursuant to 310 CMR 7.00: Appendix B(7), or expands the scope to anywhere on Earth pursuant to 310 CMR 7.00: Appendix B(7)(d)4. or 6., the Department will post these changes on its website and revise these instructions.

13. Can I aggregate multiple projects in one application?

Yes. Applicants may aggregate multiple projects in one application as long as they are of the same type. However, it may not be appropriate to aggregate some projects. The Department will evaluate the appropriateness of aggregation on a case-by-case basis. Therefore, applicants should contact MassDEP before submitting an application aggregating projects.

14. What is the process for application?

Project proponents will first apply to the Department for GHG Credit certification using form BWP AQ 27. Such certification applications may be for prospective projects contemplated for the future, or for retrospective projects that have already been implemented (as long as they were implemented on or after January 1, 2006). Applying for prospective certification will give the project proponent greater certainty that a future project will be found acceptable. If a certification application is approved, applicants will next apply to the Department for verification using form BWP AQ 28 after the GHGs have been successfully reduced, avoided, or sequestered. Alternatively, applicants may simultaneously apply for certification and verification of projects that have been implemented prior to the application date (but on or after January 1, 2006) by submitting forms BWP AQ 27 and BWP AQ 28.

The Department will publish, at the applicant's expense, a notice of a 30-day public comment period for a proposed approval, conditional approval, or disapproval of all applications for GHG Credit certification and verification. The Department may hold a public hearing. After the close of the public comment period and consideration of comments received, the Department will issue a final decision.



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15. Can I apply to have a project certified and verified at the same time?

Yes, a project proponent can simultaneously apply for certification and verification of a project. In this case, applicants will need to complete BWP AQ 27 and BWP AQ 28. When simultaneously submitting BWP AQ 27 and BWP AQ 28, both forms must be filled out completely. The Department considers the review and decision for each form to be a separate process as a legal matter, and therefore requires applicants to answer all questions on both forms, even though this seems redundant.

16. What are the application deadlines?

Applicants may submit applications for certification (BWP AQ 27) and for verification (BWP AQ 28) to the Department at any time.

In order for a GHG Credit to be eligible for verification, an application for verification of GHG Credit must be submitted to the Department within two calendar years after the end of the calendar year in which the emission reduction, avoided emission, or sequestered emission actually occurred. Applicants may wish to receive GHG Credits as soon as GHG emissions are reduced, avoided, or sequestered. Therefore, the regulations allow applicants to apply for verification of credits that were certified by the Department in a single BWP AQ 27 approval up to two times per calendar year.

17. Is there a special provision for use of certified credits during program start-up?

Yes. During the first two calendar years of the program (2006 and 2007), facilities that need to use GHG Credits to demonstrate compliance with their facility-specific CO₂ emissions cap under 310 CMR 7.29(5)(a)5.a. may use GHG Credits that have been certified, but not yet verified. If such GHG Credits are used for calendar year 2006 or 2007 compliance, the GHG Credits must be verified by December 31, 2008. If any certified GHG Credits which were used for calendar year 2006 or 2007 compliance with 310 CMR 7.29 are not verified by December 31, 2008, the affected facility using the certified GHG Credits shall provide an equivalent amount of valid GHG Credits in the 310 CMR 7.29 calendar year 2008 report due January 30, 2009.

Beginning in calendar year 2008, credits must be certified and verified prior to use for compliance.



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18. Is there a minimum or maximum size or duration for GHG projects?

Applicants may apply for certification of GHG Credits created over as long a period as desired, provided the application is for a project(s) that generates an annual average of 5,000 or more short tons CO_{2e} over the period. Proposed credit creation periods are subject to approval by the Department. Note that GHG Credits can only be verified for the number of years for which the project was certified, or until all certified GHG Credits are verified, whichever comes first. Also note that an applicant may apply for certification of credits in addition to those already certified if the project creates such additional credits.

19. What names and chemical formulas for GHGs should be used in applications for certification and verification?

Applicants should use the names and chemical formulas employed by the IPCC in its most current list of global warming potentials (see Question 21). If either the name or the chemical formula are not listed in the appropriate IPCC document, then use whichever is provided (name or chemical formula).

20. How many tons of GHG emissions equal one GHG Credit?

One GHG Credit is equal to one short ton (2,000 lbs) of carbon dioxide equivalent GHG emissions. Carbon dioxide equivalence can be calculated using the Global Warming Potential of the greenhouse gas in question.

21. What Global Warming Potential should I use in my calculations?

Applicants must use the Intergovernmental Panel on Climate Change's (IPCC) most current list of global warming potentials when calculating GHG Credits. As of October 6, 2006, this list is in the IPCC's Third Assessment Report (2001). See Table 6.7 in Section 6.12.2 and Table 6.8 in Section 6.12.3 in Climate Change 2001: The Scientific Basis. Use the 100-year time horizon for Global Warming Potentials.
(http://www.grida.no/climate/ipcc_tar/wg1/212.htm)

22. How do I calculate the GHG Credits for which my project is eligible?

A project may be eligible to receive GHG Credits for GHG emissions reduced, avoided, or sequestered. This will be calculated as the difference between the GHGs emitted or sequestered by the project; and 1) the GHGs that would have been emitted or sequestered had the project not taken place; or 2) the GHGs that would have been emitted or sequestered if best management practices were implemented; whichever yields fewer GHG Credits. Any emissions displaced due to leakage will also reduce this quantity (see Question 24 below on leakage).



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23. What are best management practices, and how do they affect the quantity of GHG Credits for which my project is eligible?

Projects will not necessarily be credited for the entire amount of GHGs reduced, avoided, or sequestered (minus leakage), and will instead be compared to an emissions baseline developed through an evaluation of best management practices. The Department will determine best management practices on a case by case basis. This determination will be informed through the public review process described in Question 14. Note that best management practices for a given sector may change over time. The Department recommends that applicants consider baselines that have been approved by other carbon constraining programs (e.g., the Regional Greenhouse Gas Initiative [RGGI]). After the Department has approved GHG Credit applications, applicants should consider baselines employed in those approved applications.

One example relevant to the calculation of GHG Credits is SF₆ emission reduction from electric distribution equipment. Due to a number of factors, SF₆ emission from electric distribution equipment has fallen significantly in recent years. Therefore, applicants for GHG Credits may not be eligible for the entirety of their emission reductions. These applicants should consider industry emission trends in their calculations.

24. What is leakage?

Leakage is the displacement of reduced, avoided, or sequestered GHG emissions to an area or location outside of the boundary of the project that reduced, avoided or sequestered the GHG emissions. Leakage occurs when the GHG emissions reduced or avoided in the project area are replaced by GHG emissions in another area. For example, if electricity generation is reduced in the project area, but electric generation is increased outside of the project area in order to replace the electricity reduction, leakage has occurred. When calculating the GHG Credits for which a project is eligible, GHG emissions lost due to leakage must be subtracted from those emissions reduced, avoided, or sequestered by the project.

25. What calculation methodologies should I use?

Forms BWP AQ 27 and AQ 28 request applicants to propose an appropriate project evaluation methodology (calculation methodology and best management practices). The Department will evaluate proposed methodologies on a case-by-case basis and will seek public comment through the process described in Question 14. The Department recommends that applicants consider those methodologies that have been approved by other carbon constraining programs (e.g., the Regional Greenhouse Gas Initiative [RGGI]). After initial GHG Credit applications are approved, applicants should consider the methodologies employed in those approved applications.



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26. What is double counting?

Double counting occurs when credits, allowances, or certificates for a given quantity of reduced, avoided, or sequestered emissions are used to comply with more than one GHG program (e.g., GHG Credits and RGGI CO₂ offset allowances).¹

27. How do I convert prices into US dollars?

Prices should be converted into US dollars using the foreign exchange rates certified by the Federal Reserve Bank of New York. These exchange rates can be found at: <http://www.federalreserve.gov/releases/h10/Hist/>. If transactions for the prospective credits have not yet been finalized, then the applicant may use any foreign exchange rate published no more than seven (7) days before the submittal of the application. If transactions for the GHG Credits have been completed, then the calculation should use the foreign exchange rate corresponding to the date of transaction.

28. Can I use GHG Credits to comply with the requirements of another program (e.g., European Union Emissions Trading Scheme)?

No. GHG Credits certified or verified under 310 CMR 7.00: Appendix B(7) may only be used to demonstrate compliance with the GHG emission standards of 310 CMR 7.29(5)(a)5. and may not be used in any other mandatory or voluntary GHG emission reduction program world-wide.

¹ While there is no prohibition in Massachusetts against a Renewable Energy Project obtaining Renewable Portfolio Standard certificates and GHG Credits under the applicable Massachusetts regulations, allowance holders should be aware that there may be issues concerning the use of certificates and credits and the marketing of “green” energy. Allowance holders should take note of the need to comply with M.G.L. c. 93A, (regarding the Regulation of Business Practices for Consumer Protection); M.G.L. c. 164, (regarding the Manufacture and Sale of Gas and Electricity); 940 CMR 19.00 et seq., the regulations of the Office of the Attorney General regarding the Retail Marketing and Sale of Electricity, and 220 CMR 11.00 et seq., the Rules of the Department of Telecommunications and Energy Governing the Restructuring of the Electric Industry.



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29. How do I complete these applications?

Applicants must supply all information requested in the BWP AQ 27 or BWP AQ 28 Application forms. No spaces should be left blank. If a question does not apply to the project, NA should be inserted in the provided space. This includes empty table cells.

Applicants can obtain their transmittal number by following the instructions on the following website: <http://www.mass.gov/dep/service/online/gettings.htm>.

Please note that these applications begin with an *Overview* section that requires some information that is requested again in later questions, where more detail is needed. For example, Section E, *Calculations*, walks applicants through computations needed to answer some questions in Sections A & B.

30. Is there an application fee?

At this time there is no application fee for BWP AQ 27 or BWP AQ 28. Therefore, applicants should not fill in Section F of the Transmittal Form.

31. How do I submit an application?

For your application to be considered complete, you must submit the BWP AQ 27 or BWP AQ 28 application form and provide all information requested in that form. A hard copy of the application must be submitted to the Department. If feasible, the Department requests that applicants also submit an electronic copy of the application. Filings must include a spreadsheet showing the calculations used to determine the amount of GHG Credits that the applicant anticipates will be, or that have been, generated according to the procedures in the regulation.

One hard copy of the application and supporting materials must be mailed to:

GHG Credit Program
MassDEP
P.O. Box 120-165
Boston, MA 02112-0165

If feasible, applicants should e-mail an electronic copy of the application and any supporting materials to:

Nicholas.M.Bianco@state.ma.us (617-292-5705)



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32. What is the timeline for MassDEP's review of applications?

MassDEP will process the applications as expeditiously as possible. The Department may request that the project proponent submit additional information if the application is incomplete or if the information submitted does not adequately document project details.

33. What regulations apply to this program? Where can I get copies?

Applicable Massachusetts regulations include, but are not limited to, the following:

- a. Emissions Standards for Power Plants, 310 CMR 7.29.
- b. Greenhouse Gas Credit Banking and Trading, 310 CMR 7.00: Appendix B(7).

These may be purchased at:

State Bookstore (in State House)
Room 116
Boston, MA 02133
617-727-2834

State House West Bookstore
436 Dwight Street, Room 102
Springfield, MA 01103
413-784-1376

The unofficial version of these regulations may also be obtained from the MassDEP Web site at <http://www.mass.gov/dep/air/laws/regulati.htm>.



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Application Completeness Checklist

- ☐ The MassDEP Transmittal Form has been completed. Transmittal forms can be found at <http://www.mass.gov/dep/service/online/gettings.htm>.
- ☐ If a GHG Credit Account has not been established, a completed Application to Establish a GHG Credit Account has been attached.
- ☐ All information requested in the BWP AQ 27 or BWP AQ 28 Application form has been supplied and no spaces left blank. (NA has been inserted in empty table cells and for items that are not applicable).
- ☐ The completed application form must be submitted in hard copy and may also be submitted electronically.
- ☐ One hard copy of the application and any supporting materials, including a spreadsheet showing the calculations used to determine the amount of GHG Credits that the applicant anticipates will be, or that have been, generated according to the procedures in the regulation, must be mailed to:

GHG Credit Program
MassDEP
P.O. Box 120-165
Boston, MA 02112-0165

- ☐ Electronic filings, if submitted, should be e-mailed to Nicholas.M.Bianco@state.ma.us
- ☐ The Part G Certification must be signed and submitted with the hard copy of the application.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention
BWP AQ 27

Transmittal # _____

Application for Certification of Greenhouse Gas (GHG) Credits

A. Summary of GHG Credit Certification Application Information

Important:

When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



1. Applicant Information:

Company or Organization (If Applicable)

Mailing Address

City/Town

State or Province

Zip Code or Postal Code

Country

Contact Person First Name

Contact Person Last Name

Telephone Number

Fax Number

E-Mail Address

2. Total number of GHG Credits being requested for certification with this application:

GHG Credits

3. Identification of account that GHG Credits will be transferred to if this application is approved:

(Please Note: If you do not yet have an account, attach a completed Application to Establish a GHG Credit Account.)

Account Name

Account Number

4. Project Type (check all that apply):

Category

Sub-Category

☐ Reduced Emissions

☐ SF6 Emission Reduction

☐ Landfill Methane Capture and Destruction

☐ Agricultural Methane Capture and Destruction

☐ Other _____

☐ Avoided Emissions

☐ Renewable Energy

☐ Energy Conservation Measure

☐ Landfill Methane Combustion to Generate Power

☐ Agricultural Methane Combustion to Generate Power

☐ Other _____

☐ Sequestered Emissions

☐ Afforestation

☐ Other _____



Massachusetts Department of Environmental Protection

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Application for Certification of Greenhouse Gas (GHG) Credits

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Notes on Completing This Form

- Please answer questions in the space provided. Where space has not been provided, please attach answers. Attachments should clearly reference the question they answer. Separate answers should be provided for each question.
- Round all carbon dioxide equivalents (CO_{2e}) to the nearest short ton. Round average price estimates (dollars per short ton of CO_{2e}) to the nearest penny. Round down when the following digit is less than 5 and round up when the following digit is 5 or greater (e.g., round 9440.4 short tons to 9440; \$3.785 per short ton to \$3.79).
- Please review the eligibility criteria in Section C before completing this form.

B. Overview

1. Briefly describe the project(s). Please attach a complete description.

2. What GHG(s) will be/were reduced, avoided, or sequestered? What are the global warming potentials (GWPs) for all GHGs that are reduced, avoided, sequestered, or emitted by the project(s)?

(Note: Before answering this question, please review the instructions for information on the appropriate source of GHG names, chemical formulas, and GWPs.)

GHG Name	GHG Chemical Formula	GWP	Reduced?	Avoided?	Sequestered?	Emitted?
			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No

3. Proposed certification period (month/day/year to month/day/year, inclusive).

(Note: Applicants should propose one (1) certification period even if all projects do not reduce, avoid, or sequester emissions for the entire period.)

Begins: _____
MM/DD/YYYY

Ends: _____
MM/DD/YYYY



Massachusetts Department of Environmental Protection
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B. Overview (continued)

4. Project location(s). If the application is for aggregated projects, list the location and description for each project being aggregated.

Project #	Country	State/Principality	County/ Subregion	City/Town	Site Location	Latitude*	Longitude*
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							

*Express latitude and longitude in decimal degrees using the World Geodetic System 1984 (WGS84). Example: +/- aa.bbbbbb

[Note: Project Numbers should correspond throughout this form.]

5. If this application is for aggregated projects, attach a brief summary of how the projects vary or will vary by geographic region.

Examples: 200 acres of afforested land in Berkshire County, MA, and 100 acres of afforested land in Hampshire County, MA; 60% efficient lighting fixtures installed in Berkshire County, MA, and 40% efficient lighting fixtures installed in Hampshire County, MA.

6. Please provide the following information in the following chart:

- Actual or anticipated date project(s) built and generating energy, or built and in use, or installed and operational (MM/DD/YYYY)
- Anticipated lifetime of the project(s) (years and days)



Massachusetts Department of Environmental Protection
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B. Overview (continued)

Project #	Date Built/Installed	Anticipated Project Lifetime
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

7. Actual or anticipated total quantity of GHGs reduced, avoided, sequestered, or emitted. Separately list each GHG that was or will be reduced, avoided, sequestered, or emitted.

GHG Name	Mass Reduced, Avoided, Sequestered	Mass Emitted	Mass Units (Short Tons/Pounds)	GWP	Net CO _{2e} Emissions

8. Total quantity of GHG Credits proposed for certification.

(Note: This should be the same number that appears in the total for Question 11 in Section E. One GHG Credit may be created for each short ton of CO_{2e} emissions reduced, avoided, or sequestered. You must re-apply for BWP AQ 27 certification if you wish to verify [using form BWP AQ 28] and receive GHG Credits for emissions in excess of those certified in the original BWP AQ 27 approval for the same project(s).)

GHG Credits



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention
BWP AQ 27

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Application for Certification of Greenhouse Gas (GHG) Credits

B. Overview (continued)

9. Average annual GHGs reduced, avoided, or sequestered:
(Note: The minimum average annual credit generation is 5,000 short tons of CO_{2e}.)

Short Tons of CO_{2e} Per Year

10. Detail the expected annual GHG Credit generation schedule.
(Notes: All calculations must be shown in Section E, Calculation of GHG Credits Generated. You may have more or fewer GHG Credits verified than certified in a given year, but you may not have more GHG Credits verified than certified for the approved certification period. If the proposed certification period is for more than 15 years, please attach a separate spreadsheet detailing the anticipated GHG Credit generation schedule for the entire proposed certification period.)

Year	GHG Credits	Year	GHG Credits	Year	GHG Credits
1		6		11	
2		7		12	
3		8		13	
4		9		14	
5		10		15	

11. Name each operator of the offset project(s) (if not your organization) and describe its relationship with your organization, including contractual agreement(s). Attach additional information, if necessary.

Project #	Operator Name	Relationship With Your Organization
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		



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C. Eligibility

1. Can the emission reductions, avoided emissions or sequestered emissions be determined through methods that are sufficiently clear and unambiguous such that the same or equivalent results would be obtained by the application of the methods by different users?

☐ Yes ☐ No* *If your answer is No for any project, that project is not eligible for GHG Credits.

2. Is any project in this application, or its reduction, avoidance, or sequestration of GHGs required by local, state or federal law or regulation, or as part of a local, state or federal permit, plan, or plan approval, agreement, administrative or judicial order, or as part of an enforcement action (including such laws, regulations, permits, plans, plan approvals, agreements, orders or actions taken to reduce other pollutants) at the time of submittal of a certification application?

(Note: A requirement to obtain a permit or plan approval under local, state, or federal law solely for the purpose of constructing, installing, or operating a voluntary emission reduction, avoided emission, or sequestered emission project shall not be considered when making this determination.)

☐ Yes* ☐ No *If your answer is Yes for any project, that project is not eligible for GHG Credits.

3. Attach an explanation of how you ensured or will ensure that the reduction, avoidance, or sequestration of GHG emissions actually occurred, and how MassDEP can confirm that these activities have occurred.

4. Attach an explanation of how you ensured or will ensure that the reduction, avoidance, or sequestration of GHG emissions will be permanent.

For sequestration projects only: Please also attach a copy of the legally binding instrument that ensures or will ensure the sequestered emissions will remain captured and securely stored in perpetuity.

5. For afforestation projects only: Has the land been, or will the land be, in a non-forested state for at least 10 years immediately before project implementation?

☐ Yes ☐ No* * If your answer is No, then this project is not eligible to receive GHG Credits.

6. Describe any potential negative impacts to the environment and public health that may result or have resulted from the project(s). Explain what they are, their severity, and your efforts to minimize or avoid these impacts. Please attach your answer.

7. Did you or will you apply for, or have you received or will you receive, in Massachusetts or any other jurisdiction, credits, allowances, or certificates for GHG emissions reduced, avoided, or sequestered by the project(s) (e.g., Clean Development Mechanism [CDM], Regional Greenhouse Gas Initiative [RGGI])?

☐ Yes* ☐ No+ *If your answer is Yes, please answer Questions a through c on the next page.
+If your answer is No, please skip to Section D, Monitoring.



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C. Eligibility (continued)

a. In the chart below, please provide the following information:

- The program to which you have applied or will apply.
- The actual or anticipated dates of application.
- The dates you received credits, allowances or certificates, if applicable.
- The name of the granting agency or entity.
- The name of the verification and enforcement agency or entity.

Please attach copies of any credit, allowance or certificate applications you have filed, and any other applicable information, to this application for GHG Credits.

Program Name	Application Date (MM/DD/YYYY)	Date Received (MM/DD/YYYY)	Granting Agency	Verification/Enforcement Agency

- b. If you did not receive some or all credits, allowances, or certificates for which you applied, explain why. Please attach your answer.
- c. Explain how you have ensured or will ensure that the reduced, avoided, and/or sequestered GHG emissions are not double counted. Please attach your answer.

D. Monitoring

1. In a separate attachment, detail your protocol for monitoring and documenting all emissions, reductions, avoidance, and/or sequestration of GHGs over the entire certification period.
2. Attach a list of sources of measurement uncertainty and provide estimates of their magnitude. Clearly document assumptions and sources of information.
3. Attach a description of project leakage or the potential for project leakage, how it was or will be monitored, and the steps that were or will be taken to minimize or avoid it.

E. Calculation of GHG Credits Generated

(Note: For the questions that begin on the next page, provide answers for each project location over the certification period. Express emissions in mass of CO_{2e}. In the last step, round to number of whole short tons of CO_{2e}. This is the number of GHG Credits that you may be eligible to receive. Show all calculations in a separate attachment.)



E. Calculation of GHG Credits Generated (continued)

1. Detail any laws, regulations, policies, guidelines and methods that were used to calculate emissions that have been or will be reduced, avoided, or sequestered by the project (e.g., Transmittal Number of Certified BWP AQ 27, Subpart 10 of RGGI Model Rule, CDM approved method number). Attach your answer.
2. Attach a list of sources of uncertainty in your methods and calculations and provide estimates of their magnitude. Clearly document assumptions and sources of information.

Answer Questions 3 through 11 in the Table on Page 9. See the notes that follow the Table.

3. How many short tons of CO_{2e} will be/have been emitted or sequestered by the project over the certification period?
4. How many short tons of CO_{2e} would be/would have been emitted or sequestered over the certification period if the project were not implemented?
5. What is the difference between the short tons of CO_{2e} that will be/have been emitted or sequestered by the project (Question 3 of this Section) and the short tons of CO_{2e} that would be/would have been emitted or sequestered if the project were not implemented (Question 4 of this Section)?
6. Attach a description of best management practices (BMPs) for the project. Explain why you believe that these practices are an appropriate emissions baseline for projects of this type. Please indicate if you believe that best management practices are being or were implemented for the project and why.
7. How many short tons of CO_{2e} would be/would have been emitted or sequestered over the certification period if best management practices were implemented, or continue to be implemented?
8. What is the difference between the short tons of CO_{2e} that will be/have been emitted or sequestered by the project, (Question 3 of this Section) and the short tons of CO_{2e} that would be/would have been emitted or sequestered if best management practices were implemented (Question 7 of this Section)?
9. What is the lower value of Question 5 and Question 8 of this Section?
10. How many short tons of CO_{2e} will be/have been lost due to leakage over the certification period?
11. Subtract the short tons of CO_{2e} that will be/have been lost due to leakage (Question 10 of this Section) from the lower total of Question 5 or Question 8 of this Section (Question 9 of this Section). This is the total number of GHG Credits for which the project may be eligible.



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E. Calculation of GHG Credits Generated (continued)

P R O J E C T #	GHGs Emitted (-) or Sequestered (+) by Project	GHGs Emitted (-) or Sequestered (+) if Project Not Implemented	[Question 3] Minus [Question 4]	GHGs Emitted (-) or Sequestered (+) if BMPs Implemented	[Question 3] Minus [Question 7]	Lower Value: [Question 5] or [Question 8]	GHGs Lost Due to Leakage	[Question 9] Minus [Question 10]
	[Question 3]	[Question 4]	[Question 5]	[Question 7]	[Question 8]	[Question 9]	[Question 10]	[Question 11]
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
T O T A L								

Notes for Completing the Table Above:

- Express all values in short tons CO_{2e}
 - Indicate sequestered emissions as positive numbers in Questions 3, 4 and 7 (e.g., 100 tons sequestered CO₂ should be expressed as "100").
 - Indicate emissions of GHGs into the atmosphere as negative numbers in Questions 3, 4 and 7 (e.g., 100 tons emitted CO₂ should be expressed as "-100").
 - Express GHGs lost due to leakage as positive numbers.
 - If the TOTAL in Question 11 is a negative number, this project is not eligible for GHG Credits.
 - Attach a supplemental spreadsheet detailing all calculations.
12. Were the same calculation methods used to quantify the emission or sequestration of GHGs in Questions 3, 4, and 7?
- ☐ Yes ☐ No*
- * If your answer is No, attach an explanation of why this is necessary and appropriate. Also explain the implications of this inconsistency.



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E. Calculation of GHG Credits Generated (continued)

13. What is the negotiated or anticipated price per short ton of GHG Credit applied for? Attach documentation. Express in U.S. dollars. Round price per GHG Credit to the nearest penny. If all GHG Credits applied for are not anticipated to have the same price, please attach a description of the anticipated prices with documentation.

\$ _____
Per GHG Credit

F. Program Analysis and Evaluation

(Note: The questions in this section will be used to evaluate this MassDEP program. They will NOT be used to evaluate your application.)

1. Did you or will you apply for, or have you received or will you receive, in Massachusetts or any other jurisdiction, non-GHG credits, allowances, or certificates for this project (e.g., NOx Allowances via a public benefit set-aside, Renewable Portfolio Standard certificates)?

☐ Yes* ☐ No

* If your answer is Yes, provide the following information in the chart below:

- The program to which you have applied or will apply.
- The actual or anticipated dates of application.
- The dates you received credits, allowances or certificates, if applicable.
- The name of the granting agency or entity.
- The name of the verification and enforcement agency or entity.

Program Name	Application Date (MM/DD/YYYY)	Date Received (MM/DD/YYYY)	Granting Agency	Verification/Enforcement Agency



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F. Program Analysis and Evaluation (continued)

2. Did you or will you use electric distribution company energy efficiency funds (e.g., rebates or system benefit charge funds) for any of the projects applied for?

☐ Yes* ☐ No

*If your answer is Yes, what percent of total costs did those funds represent? Please provide the best estimate or range possible.

Percent _____

3. As this is a new program for MassDEP, the agency is interested in your feedback regarding these forms. Please attach any suggestions you might have for improving them.

G. Certification

As the applicant, or the person fully authorized to make this certification on behalf of the applicant, I certify that I personally examined the foregoing information, I am familiar with the information contained in this application and any attachments thereto and that, based on my inquiry of those persons immediately responsible for obtaining the information, I believe that the information contained in this application, is true, accurate and complete. I am aware that pursuant to M.G.L. Ch. 268, § 6, there are significant penalties for submitting false information, including possible fines and imprisonment.

Signature of Person Authorized To Make This

Print Name

Title

Date